

REMARKS

Claims 1-4 and 6-7 stand rejected under 35 U.S.C. § 103 (a) as being unpatentable over Sakagami (JP 2002/203359) in view of Shigetomi (JP 10-038907). Applicant respectfully traverses this rejection for at least the following reasons.

The Final Office Action admits that “Sakagami fails to disclose a controlling unit configured to determine the identification numbers based on a ratio between the numbers counted of the respective levels of the pulse signals, wherein the controlling unit is further configured to compare a counted value of a time point when the opposite level is detected with the reference values stored in the memory, and to decide that a noise signal is superposed in the pulse signal when the counted value is out of tolerances of the reference values and initialize the counted values.” Accordingly, the Final Office Action relies upon Shigetomi to allegedly teach “a motor rotation sensing device that counts HI and LO pulses (par. 51) and a controller that uses the ratio between the numbers counted (par. 51), wherein the controlling unit is configured to decide if a noise signal is superposed in the pulse by comparing the ratio with a reference value and initializes the counted values (par. 47, par. 50 and figs. 3-4).” Furthermore, the Final Office Action relies upon Shigetomi to allegedly teach “wherein the predetermined values are previously measured values stored in the memory (pars. 52 and 56).” Thus, the Final Office Action concludes that it would have been obvious to modify the device disclosed by Sakagami “provide for position detection based on a ratio of counted values wherein the ratio is compared to a predetermined threshold as taught by Shigetomi” based on the motivation to “calculate count ratios and to compare the ratio with a predetermined threshold in order to cancel the effect that a noise or disturbance has on the count values (Shigetomi, Abstract).” Applicant respectfully disagrees.

Applicant respectfully asserts that Shigetomi merely teaches comparison of a duty ratio obtained by calculation and detection, wherein the duty ratio corresponds to a reference value. Accordingly, Applicant respectfully asserts that Shigetomi fails to teach or suggest a comparison of counted values of a time point when the opposite level is detected with previously-input counted numbers or respective levels of the pulse signals (reference values). Thus, Applicant respectfully asserts that Shigetomi fails to teach or suggest a controlling unit “configured to compare a counted value of a time point when the opposite level is detected with the reference values stored in the memory,” as recited by independent claim 1 and 2. Similarly, Applicant respectfully asserts that Shigetomi fails to teach or suggest a method for determining identification numbers in a rotary tray apparatus including, in part, the steps of “determining the identification numbers based on a ratio between the numbers counted of the respective levels of the pulse signals” and “comparing a counted value of a time point when the opposite level is detected with the stored reference values,” as required by independent claim 7.

For at least the reasons presented above, Applicant respectfully asserts that neither Shigetomi nor Kim et al., whether taken singly or combined, remedies the admitted deficiencies of Sakagami. Accordingly, Applicant respectfully asserts that Sakagami, Shigetomi, and Kim et al. fail to establish a *prima facie* case of obviousness with regard to at least independent claims 1, 2, and 7, as well as claims 3-6, and 8-10.

CONCLUSION


In view of the foregoing, Applicant respectfully requests reconsideration and the timely allowance of the pending claims. As requested above, should the Examiner feel that there are any issues outstanding after consideration of the response, the Examiner is invited to contact the Applicant's undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted, .

MORGAN, LEWIS & BOCKIUS LLP

By: _____



David B. Hardy
Reg. No. 47,362

Dated: June 21, 2007

Customer Number: 009629
MORGAN, LEWIS & BOCKIUS LLP
1111 Pennsylvania Avenue, N.W.
Washington, DC 20004
202-739-3000